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**200 AREAS NUCLEAR OPERATOR
TRAINING PROGRAM DESCRIPTION**

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Rev. 0, Impact Level IV**

Hastingshouse Hanford Company

Technical Training: Program Descriptions

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NOTE: The following training programs are described in this working level document. These programs support Manual WHC-CM-8-7, "Operations Support Services," Procedure 620, 200 Area Training Program description.

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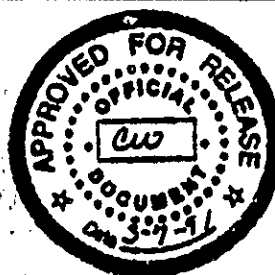
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200 AREAS NUCLEAR OPERATOR TRAINING PROGRAM DESCRIPTION

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Appendix A

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200 AREAS NUCLEAR OPERATOR TRAINING PROGRAM DESCRIPTION

1.0 PURPOSE

This procedure provides the methods and requirements for training Nuclear Operators assigned to the 200 Areas as required by DOE Order 5480.5.

2.0 SCOPE

This procedure describes the types of training and methods which accompany the examination requirements for Nuclear Operators within the Defense Waste Management and Chemical Processing Programs. Operator training classification and examination/reexamination schedules are defined.

3.0 DEFINITIONS

3.1 QUALIFIED OPERATOR

An operator whose skills and abilities gained through training and experience, as measured against established requirements, qualify the individual to perform a required job or tasks in a safe and proficient manner.

3.2 CERTIFIED OPERATOR

A qualified operator whose training and qualifications have been verified and attested to in writing by a cognizant management official. Formal documentation of qualifications is maintained as evidence of the certification status.

4.0 RESPONSIBILITIES

4.1 MANAGER 200 AREA TRAINING

- o Administer Nuclear Operator (NO) Training in accordance with WHC-CM-8-6, Section 200.
- o Assign technical instructors as required to meet NO academic training requirements.
- o Ensure assigned technical instructors are properly certified to teach assigned subject areas.
- o Approve training lesson plans and written examinations.
- o Issue and maintain this manual.

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4.2 FACILITY/PLANT MANAGER

- o Administer NO on-the-job training (OJT) in accordance with WHC-CM-8-6, Section 200.
- o Assign OJT instructors as required to meet on-the-job training requirements.
- o Ensure OJT instructors are properly certified.
- o Approve NO lesson plans and OJT checklists.

4.3 TECHNICAL INSTRUCTORS

- o Develop, present, and maintain the NO Theory and Fundamentals Training Program in accordance with this manual.

4.4 OJT INSTRUCTORS

- o Develop, present, and maintain Generic and Facility Specific OJT in accordance with this manual.

5.0 REQUIREMENTS

5.1 OPERATOR CLASSIFICATIONS

The operator classification is divided into three classifications:

- | | |
|----------------------------------|-------------------------|
| o Operator Trainee (OT) | 0-6 Months |
| o Nuclear Operator (NO) | 6 Months - 54 Months |
| o Nuclear Process Operator (NPO) | Approximately 54 Months |

Additional information related to Operator Classification is provided in Appendix A.

5.1.1 Operator Trainees

New hires in Seniority Group 004 are classified as OT and remain an OT for a six-month probationary period. Operator Trainees receive formal on-the-job training leading to the job certifications and are examined on fundamental knowledge as follows:

- o GRCO
- o Plant Specific Operations

All OTs are required to pass the GRCO examination and the Plant Specific Operations examination by the end of the six months. Operator Trainees who

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demonstrate satisfactory progress, meet the required qualifications, and pass the required examinations are promoted to NO at the end of the six-month probationary period. An OT who fails to pass the GRCO or Plant Specific Operations examination after two attempts will be removed from Seniority Group 004.

5.1.2 Nuclear Operators

Training for Nuclear Operators is an ongoing process with annual examinations required for uninterrupted wage progression. Each of the three progression examinations requires a demonstration of a greater degree of knowledge. Progression examinations occur at the following positions on the chemical operator wage progression scale:

o First	18 Months
o Second	30 Months
o Third	42 Months

An NO who fails to pass a progression examination may request reexamination after a two-week waiting period.

An NO who fails to pass a progression examination after two attempts will not progress in the wage scale until such time as a passing grade is made. The employee may request reexamination 10 months after the date of the second attempt and annually thereafter. Progression in any case will not occur prior to 12 months from the previous progression date.

An NO who fails to pass the NPO examination must wait one month for reexamination. An NO who fails to pass the NPO examination after two attempts may request reexamination one year after the initial attempt and annually thereafter.

5.1.3 Nuclear Process Operator

The NPO examination requires the demonstration of comprehensive knowledge on:

- o GRCO
- o Plant Specific Operations
- o Emergency Procedures and Abnormal Plant Conditions

Nuclear Process Operators are required to pass an examination every two years to demonstrate continued proficiency required for the NPO classification. In alternate years they are required to successfully complete the EPAPC examination.

An NPO who fails to pass the NPO examination may request reexamination after a one-month waiting period.

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An NPO who fails to pass the NPO examination after two attempts will be reclassified to NO. The employee may then request the NPO examination 10 months from the date of the second attempt and annually thereafter. In any such case, upgrade to NPO will not occur less than 12 months from the date of the first NPO examination failure.

5.2 TRAINING PROGRAM

The Nuclear Operator Training Program consists of three parts:

- o Progression Training
- o Job Certification
- o Generic Training

Under Progression Training, operators are required to successfully complete written examinations on a periodic basis. Examinations are required at 6 months, 18 months, 30 months, 42 months, and 54 months. After an operator has successfully completed the 54-month Nuclear Process Operator (NPO) examination, retesting is required every two years to maintain the NPO level.

Job Certification is the practical, on-the-job portion of the Nuclear Operator Training Program. Operators are required to successfully complete a written examination and a walk-through evaluation demonstrating their competence in performing a specific job. Recertification is required every two years.

Generic Training is conducted by non-plant forces within the Technical Training Organization. Satisfactory completion is required as part of the overall Nuclear Operator Training Programs. Each operator must meet Hanford Environmental Health Foundation (HEHF) mask fit requirements.

5.2.1 Progression Training

The program provides training for General Radiochemical Operations and Plant Specific Operations, which include emergency procedures and abnormal plant conditions.

1. General Radiochemical Operations Training. General Radiochemical Operations (GRCO) training provides general operator knowledge that applies to all operating facilities. The following topics are covered in the GRCO training:

- o Introduction to Operations at Westinghouse Hanford Company
- o Radiation Safety
- o Mathematics
- o Environmental Protection

- o Chemistry
- o Criticality Prevention
- o Security
- o Nuclear Materials Management
- o Industrial Safety
- o Instrumentation
- o Emergency Preparedness
- o Configuration Management/Operating Procedures
- o Processes and Equipment

Using the basic knowledge obtained from this training, the operator is ready to apply this same information to specific situations at the plant to which the employee is assigned, and ultimately, to the tasks associated with the employee's individual job assignments and responsibilities.

2. Plant Specific Operations. Plant Specific Operations training is provided for each operating facility. This is accomplished through Plant Specific Operations training manuals developed for each facility. These manuals elaborate on GRCO subjects applicable to individual plants. The following topics are covered in the Plant Specific Operations Manuals:

- o Introduction
- o Emergency Procedures
- o Criticality and Radiation Safety
- o Industrial Safety (including hoisting and rigging and hazardous waste)
- o Operational Safety Requirements
- o Security
- o Processes and Equipment
- o Glossary
- o Study Questions (separate handout)

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5.2.2 Generic Training

To achieve initial certification, Nuclear Operators are also required to complete the following generic training requirements as prerequisites:

- o New employee orientation
- o Self monitoring
- o Radiation safety training
- o Facility orientation
- o Hazardous Materials training
- o Security training
- o Applicable criticality safety training:
 - Nonfissile worker
 - Isolated and limited control facilities
 - Fissile material handler
 - 6-month update
- o DTPA training (fissile facilities only)

NOTE: Maintaining completion status for retraining is important and strong, periodic monitoring controls are used to assure operators receive cyclic training as required. However, failure to maintain the generic training requalification does not, of itself, remove an operator's certification.

5.2.3 Job Certification

Documented formal and on-the-job training, examinations, satisfactory demonstrations of job knowledge, and demonstrations of manipulative skills are required to achieve job certification.

- o Certification is the basis on which assignments of individuals to perform work independently are made.
- o Employees are expected to certify on a variety of jobs as directed by management.
- o Documentation of continued proficiency is required every two years for recertification.
- o Employees are given a reasonable length of time, as determined by management, to certify on each job assignment.

Recertification is required every two years. To recertify, operators must complete a written examination and a walk-through demonstration.

6.0 PROCEDURE

6.1 TRAINING METHODS

- o Formal Training
- o On-The-Job Training

6.1.1 Formal Training

Formal training is provided to educate operators in preparation for job performance and certification. Written examinations are administered where needed as an integral part of training. Such examinations are vital for:

- o Evaluating the training program
- o Determining areas where individual assistance is needed
- o Documenting job knowledge

Operators who fail to pass written examinations receive further training and retesting in those areas where deficient as described in Section 6.2.1.

6.1.2 On-The-Job Training

On-the-job training (OJT) provides operators with "hands on" experience in performing a specific job. On-the-job training consists of:

- o Study of applicable documents
- o Demonstration by knowledgeable personnel
- o Experience under supervision
- o Evaluation

Normally, operators in training are assigned to work with certified personnel for the purpose of training and gaining experience in a particular job.

The employee is under the observation of an OJT instructor or evaluator until the employee has completed training for a task. Successful completion is documented on the OJT checklist. The OJT instructors and evaluators shall be trained as required by WHC-CM-8-6.

6.2 EXAMINATIONS

Examinations may consist of written tests, oral tests, performance demonstrations or any combination thereof. Knowledge and skills are evaluated in three major areas:

- o Criticality Safety (where applicable)

- o Radiation Safety
- o Process and Equipment

Operators must achieve a minimum passing score of 70 percent on the overall examination and will be allowed two attempts to pass.

6.2.1 Remediation

Operator performance and progress towards achieving mastery of learning objectives is monitored through examinations. At the completion of each written exam, incorrectly answered questions are reviewed with the operator. If evaluation trends indicate potential problems, the operator's manager is informed of the performance problem. Operations management counsels with the employee and develops a corrective action plan as determined necessary on a case-by-case basis.

Trainees who cannot achieve the required performance level may be recycled to segments of training where their achievement was below standard. A program of remedial training may be adopted where the trainee receives tutoring and is given additional study time to improve mastery of the learning material. Remedial training also applies to on-the-job performance. Operators may be required to requalify on portions or all of an OJT checklist as necessary to correct improper or below standard performance. Personnel who cannot meet the established training requirements will be removed from the program and reassigned new duties.

6.2.2 Retraining and Reexamination

1. Nuclear Process Operators. GRCO and Plant Specific Operations Examinations - Every two years

Emergency Procedures and Abnormal Plant Conditions (EPAPC) - In alternate years when GRCO and Plant Specific Operations examinations are not required.

2. Operator Trainees and Nuclear Operators. Plant Specific Operations and GRCO examinations annually. The GRCO and Plant Specific Operations examinations contain EPAPC questions which satisfy the EPAPC testing requirements.

3. Job Certification. Recertification is required every two years.

6.3 JOB PROFICIENCY

6.3.1 Transfers

An operator who is transferred from one facility to another will begin training for job certifications and plant specific operations for the newly assigned facility and pass the Plant Specific Operations examination within six months from the date of transfer. The expiration date of this Plant Specific Operations exam will coincide with the expiration date of the current GRCO exam.

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6.3.2 Absences

Retraining shall be required of operators classified as Fissile Material Handlers following extended absence from the plant or facility or if the operator has not performed duties for which he is certified, for an extended time period. The extent of retraining will depend on the duration of the absence or time away from the process. In each case, "Operations" management will assess the depth and method of retraining needed per the following guide:

- o Less than 3 months - If retraining is deemed necessary, informal training and oral testing may be sufficient.
- o 3 to 12 months - selected retraining, as appears necessary, including training in the use of and familiarization with any new devices or changes in the process with appropriate documentation demonstrations of knowledge and proficiency, is required. As a minimum, a mandatory reverification walk-through is to be performed by the OJT manager. Shift managers may select to conduct a partial or complete OJT certification.
- o Greater than 1 year - written reexamination shall be required, and where results indicate necessary, retraining and retesting shall be mandatory.

6.4 JOB CERTIFICATION

Upon successful completion of training and the required written and/or oral and performance examinations, the plant manager verifies completion of all qualification requirements associated with a certification. The manager or his delegate attests to the operator candidate's satisfactory certification readiness status by signing the certification section of the OJT checklist. Technical Training processes all the training records necessary to document the certification. Certification records are retained in the Westinghouse central training records file.

6.5 DOCUMENTATION

All Nuclear Operator training records shall be forwarded to the "Technical Training, Training Records System" as defined in WHC-CM-8-6, "WHC-OSS Manual," Procedure 209.

7.0 REFERENCES

1. DOE Order 5480.5.
2. WHC-CM-8-7 "Operations Support Services," Procedure 620.
3. WHC-CM-8-6 "Site Support," Section 200 Procedures.

APPENDIX A

I. OPERATOR CLASSIFICATIONS: Supplementary information to Section 5.1.

- A. The operator classification is divided into four wage classifications. They include the three classifications noted in Section 5.1 plus the Nuclear Process Operator Working Leader (NPOWL).
- B. The Operator Trainee's (OT) six month probationary period is used also for any necessary formal retraining, reexamination, and on-the-job training (OJT). OTs are assigned to perform work for which adequate training and documentation has been provided. The OT who has a continuous two-weeks or longer excused absence, will have the probationary period extended by the length of the excused absence.
- C. The Nuclear Operator (NO) who fails to pass the first progression examination will remain at the 12-month wage rate. The NO who fails to pass the second progression examination will remain at the 24-month wage rate. The NO who fails to pass the third progression examination will remain at the 36-month wage rate.

An NO who fails to pass a progression examination may request reexamination after a two week waiting period. However, when a progression examination is passed on a second attempt, progression will not continue until one month past the date of the first failure.

Time lost because of failures and reexaminations at one wage rate, does not apply toward the next wage progression.

An NO may request the NPO examination nine months after passing the third progression examination. However, the minimum time in which the employee may progress to the NPO wage rate is 54 months.

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